

de Vries's *T. pratense quinquefolium*, I potted the whole stool upon which it grew for further observation. The following remarks, however, refer only to the leaves of that sprout which bore the leaf with five leaflets just mentioned. A few days after the plant was potted a new leaf, number 6, appeared from between the infolded stipules of number 5 and upon the same side of the axis of the sprout. This leaf consisted of six leaflets and, like number 5, it had a strong petiole with a shallow median groove along its upper side; and a cross section showed that the internal canal was double. Number 7 soon came out on the opposite side of the sprout and bore only three leaflets. Number 8 came out on the same as numbers 5 and 6, bearing six leaflets upon a petiole like that of each of those numbers. Only these three abnormal leaves appeared and they were preceded and followed by normal leaves on the sprout that bore them. The structure of the petiole of each plainly shows connation, and it necessarily follows that the leaflets in excess of three were not supernumeraries, but normal leaflets of one of the two petioles which are thus represented. The double character of these three petioles was easily traceable from the leaflets to the stipules but there it disappeared, and I found no trace of duplication of the stipules. The connation in number 6 extended to the two middle petiolules of the leaflet cluster and also to the lower part of the two leaflet blades which they bore; but in numbers 5 and 8 all the leaflets and petiolules were fully separate. I assume that one of the leaflets of number 5 was aborted. These three abnormal leaves are evidently monstrosities and not such cases of true multiplication of leaflets as occur in *T. pratense quinquefolium* and in ordinary four-leafed clover. The leaves here referred to, numbers 5, 6, 7, and 8, are preserved in the herbarium of the U. S. National Museum.

WASHINGTON, D. C.,
November, 1902.

REVIEWS

A new Index to Botanical Literature

Under the auspices of the Royal Society of London, an International Catalogue of Scientific Literature was begun with the opening of the twentieth century. The first issue of Section

M, Botany, for 1901 has just been received, though it is dated May 1902. It is a small octavo of 378 pages giving: (1) An author's catalogue in which the titles of something like 2,100 botanical papers issued during last year are listed, followed by (2) A subject catalogue in which the same titles appear under one or more topics arranged on a numerical system which is practically a reclassification of the Dewey system with the points omitted. Under each of the major divisions of the subject Taxonomy occur lists of new species published in the papers cited.

As the Society announces the further issuance of a second part during the year to complete the record of the world's botanical literature for 1901, they have for the present disarmed criticism along a very important line, namely completeness. As the annual output of botanical literature during the past decade has ranged from 5,000 to 8,000 titles, it will be necessary for the second part to be considerably larger than the present one. Taking a random half dozen well-known American contributors whose titles for 1901 have been published elsewhere, the present volume gives less than one half of their contributions to botany, and for some not over one third of them.

The enormous work entered upon by the Society can better be seen when we learn that botany is only one of the seventeen subjects whose literature is being listed in this series of publications.

The strongest criticism that can be made on the system aside from the question of completeness is that it is a book instead of a card catalogue. When, for example, the year 1925 is reached, not to look farther into the future, one will be obliged to consult twenty-five individual author catalogues to find a given article by any desired author unless its exact date is known in advance. One will be obliged to consult the same number of subject catalogues to find the summary of literature on any one subject, as, *e. g.*, the Hepaticae, for the period covered. Until the European library system attains the efficiency of the American in adopting the standard card catalogue, such a publication may involve practical difficulties, but it is the only

solution of the index problem. The literature relating to American botany has now been indexed since 1894 on the card system; by purchasing duplicate cards each library can adopt the subject catalogue suited to its own needs which are sure to vary according to the size, purpose, and character of the library. Under the card system, however long the index is continued, there will be simply one place to search for any paper by any author; the example of Just's Jahresbericht, hitherto our most valuable index for the world's literature, has demonstrated the practical inutility of the annual volume as an index guide. Life is too short to be forced to waste time consulting annual volumes when there is an infinitely simpler way.

LUCIEN M. UNDERWOOD.

PROCEEDINGS OF THE CLUB

TUESDAY, OCTOBER 14, 1902

The meeting was held at the College of Pharmacy; 13 present; Dr. Britton in the chair.

The scientific program consisted of informal reports of summer work and observations.

The secretary spoke of his collections of asters, also of *Euphrasia* and other alpine plants in the White Mountains. Discussion regarding Wettstein's monograph of *Euphrasia* followed.

Professor Lloyd reported various observations made during the summer, which are being published in the current numbers of TORREYA.

Dr. Tracy E. Hazen reported observations about St. Johnsbury, Vt., on the black maple, *Acer nigrum*. He maintained its specific distinctness from the sugar maple. Dr. Britton confirmed its distinctness as seen in other parts of western New England and in western New York. Its leaves are darker beneath and are said to expand about two weeks later in spring, its fruit is much larger and there seems to be a difference in the angle of divergence of the keys.

Miss F. A. Mulford spoke of the flora of the Hempstead plains, on Long Island, remarking on certain similarities to that of Kansas.